

Critical Success Factors for ERP Implementation in SMEs: A Systematic Review

Roberto Bernal¹, Diana Jadán¹, Erik Sigcha², Eliezer Colina³, Ximena Álvarez¹, Paola Vintimilla¹, Rodrigo Guamán¹, Juan Llivisaca¹, Mario Peña¹, Michelle Cabrera¹, and Lorena Siguenza-Guzman²

¹Facultad de Ciencias Químicas,
Universidad de Cuenca, Ecuador

²Departamento de Ciencias de la Computación,
Facultad de Ingeniería, Universidad de Cuenca, Ecuador

³Dirección de Investigación,
Universidad de Cuenca, Ecuador

Corresponding author's Email: roberto.bernali95@ucuenca.edu.ec

Abstract: Enterprise Resource Planning (ERP) systems allow integrating the information of all business areas in an organization. These systems have been traditionally used by large companies; however, the same degree of use does not show in Small and Medium Enterprises (SMEs). SMEs are essential players in the economic development of a country; unfortunately, they are subjected to constant challenges such as limited resources and funding, inadequate organizational structure, lack of support and skills, making each SME organization a different case. This study aims to identify, to prioritize and to classify through an extensive literature review critical success factors in the adoption and implementation phases of an ERP system in SMEs. Main results indicate that these critical factors may classify as internal and external to the company; and in turn, each class is subdivided taking into account socio-cultural, technological, organizational, political and economic aspects. These sub-classifications correspond to the strategic or tactical scope of the organizational structure. The discussion of this project is oriented at constructing a baseline for establishing a methodology that allows the successful implementation of ERP systems in SMEs. Thus, this work provides a practical approach where critical factors that have an impact on organizational performance interrelate, being the starting point for practical analysis in subsequent case studies.

Keywords: Critical success factors, ERP, SME, systematic review